

Prevention Notes

From the Director's Desk

New VHA Preventive Medicine Handbook & Code

iven the pace of change in VHA, it will come as no surprise that the *Preventive Medicine Handbook 1101.8*, which was entirely rewritten two years ago, is outdated. A new edition is now undergoing concurrence at Headquarters with release anticipated in the next few weeks. Here is a summary of changes incorporated into the new edition.

The introductory text was streamlined leaving a simplified list of recommendations for the care of veterans. In response to requests from clinicians, all VHA health promotion and disease prevention strategies were assembled in a single location including those found in VHA Guidelines, Handbooks, Prevention Index and Chronic Disease Index. The resulting list has 36 items with several strategies that are applicable to individuals with a chronic illness. A table permits the reader to quickly identify the source for each citation.

Although all 13 strategies in the current *Handbook* remain valid, some were modified in the new edition. An example is Breast Cancer Screening which now incorporates recommendations in the recently released *Mammography Directive 98-017* addressing the needs of women age 40-49.

Data reporting requirements for each strategy in the old *Handbook* and the associated *Annual Report Worksheet RCN10-0666* were removed. This information is now collected via the Veterans Health Survey and soon will be available via computer encounter records as noted below. Encounter reports and survey data summaries are more reliable than hand-tabulated reports utilized in prior years.

A method for documenting all of the new *Handbook* health promotion and disease prevention strategies was submitted to the Information Technology Clearinghouse simultaneously with submission of the *Handbook*. Existing CPT and ICD codes are inadequate to support the requirements of forward-looking healthcare programs. Accordingly, a new system is proposed which is capable of triggering accurate reminders for use by clinicians, assembling workload data for administrators, creating reports for quality assessment and for comparison studies with other healthcare organizations. The system requires a national data repository and a link with the clinical record.

Having specific codes for each *Handbook* strategy will mean computer Clinical Reminder Taxonomies can be vastly simplified and made to function with far more accuracy. In cases where no current CPT or ICD taxonomy exists, reminders can be generated for the first time because of this innovation. A uniform national approach to clinical reminders for health promotion will now be possible. This is absolutely essential as the VA moves to implement computerized records adapted for rapid transfer to whatever location the veteran selects for access to VA Care.

In response to intense clinician interest, the data proposal permits one of four mutually exclusive parameters to be associated with each *Handbook* strategy that is encoded. The options include "Done Today at the VA", "Done on a Prior Specific Date", "Not Indicated", and "Patient Refused". Presence of these parameters will make clinical reminders far more accurate and useful. Use of these parameters in data analysis will permit proper segregation of populations to reflect delivery of services for eligible individuals with exclusion of those for whom a service is inappropriate.

The NCHP data proposal was discussed at the Clinical Guidelines Information Implementation Task Force Meeting in Chicago (July 27-30) where the approach received strong endorsement by all 21 VISN representatives present. They requested prompt Information Technology Office attention to an encounter code system capable of capturing every VHA Handbook, Guideline, and Index requirement. Judging from numerous clinician comments to NCHP staff, this represents an extremely welcome step in the right direction which deserves a very high priority.

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National Center For

HEALTH PROMOTION

Editor's Notes

y the time you receive this newsletter, our third annual meeting, "Integrating Prevention and Education: Making It Work" will have taken place. Look for program highlights in the next issue of Prevention Notes. Unlike previous years, funding for travel to the meeting was provided by the local Networks. We appreciate their support along with that of the Office of Employee Education and the Office of Primary/Ambulatory Care in making the program possible. The intent of the conference was to improve coordination of health promotion and disease prevention activities between educators and providers at the Network and facility level. The roster of speakers reflected our response to the educational needs of the field. These included representatives from Headquarters, the Centers for Disease Control and Prevention, NCHP, a private sector HMO, the VA Cochrane Center in San Antonio, the Department of Defense, the Office of Disease Prevention and Health Promotion, Department of Health and Human Services, the VA Office of Performance and Quality and the VA Health Services Research and Development Service.

Patient Education Networking

A program held currently in VISN 6 could serve as a model for other VISNs interested in finding ways to coordinate education program efforts and share resources. A multidisciplinary group of approximately 20 staff associated with patient education for veterans, met to develop a strategic plan outlining needs, goals, major concerns and performance measures. Strategies for sharing staff and materials was an invaluable product of the

meeting. NCHP staff served as consultants and presenters at the session. If your VISN has a program similar to this one already in place, we would like to hear about it and feature it in future issues of this newsletter.

For more information about the education meeting and plan contact Gwen Waddell-Schultz, Durham VAMC at **919.286.6141** or Mary Jacobs at the Richmond VA **804.675.5249**.

References Worth Noting

Many publications dealing with prevention cross my desk regularly. The following are recommended for your perusal or more extensive reading. (1) *Patient Education in Primary Care: Key to Active Veteran Participation*, a new patient education newsletter published quarterly by the

Office of Primary and Ambulatory Care and the Office of Employee Education, Patient Education Program, is an excellent resource. The Patient Education Contact person at your medical facility receives this document and would be happy to share it with you. (2) Magazine of Ambulatory and Primary Care published bimonthly by the Primary and Ambulatory Care Strategic Healthcare Group, Headquarters and the National Center for Cost Containment. This publication is available through the primary care service at your medical center; (3) VA Practice Matters, a publication of the Management Decision and Research Center, in the Department of Veteran's Affairs Health Services Research and Development Service. This publication deals with specific healthcare topics such as "Acute Stroke Treatment" and provides excellent and timely information as well as relevant research related to the treatment, symptoms and diagnosis of various medical conditions and also describes appropriate clinical therapies. The July, 1998 release (Vol.3 Issue 1) is dedicated to the topic of "Diagnosis and Management of Benign Prostatic Hyperplasia." Your medical center library should be receiving copies of these publications.

A relatively new journal devoted to news in the VA is the *Veterans Health Services Quarterly* (VHSQ). Charles Kennedy, editor, informs that a pocket guide dealing with primary care is forthcoming along with a Q&A section devoted to the detection and treatment of prostate cancer which is scheduled for the September issue, due out around September 15. The journal hosts a web page worth checking out.at www.vhsj.com.

NCHP Featured in Publications

A description of the prevention services received by Veterans using VHA facilities appeared in a recent issue of *Preventive Medicine* (27:604-610 1998). The authors are Laurence G. Branch,Ph.D., Donna Rabiner, Ph.D., Patricia Patterson,RN, Ph.D. and Robert J. Sullivan,Jr.,MD, MPH. The paper presents the rates at which veterans report receiving 13 recommended health promotion and disease prevention services.

In another reference, 1997 VHS statistics were compared with *US Healthy People 2000 Goals*. Data mentioning male and female veterans exceeding the DHHS objectives were noted in the "Consortium Exchange" section of *Prevention Report*, (Volume 13: Issue 1, 1998) published by the Department of Health and Human Services, Office of Disease Prevention and Health Promotion (ODPHP). Targets bettered by the veteran population over the national goals were in the areas of cholesterol screening, influenza immunizations and colorectal cancer screening among males. Female veterans also surmounted DHHS objectives in cholesterol screening and influenza immunizations, as well as pneumococcal immunizations, cervical cancer screenings, breast cancer screenings and seat belt use. DHHS is currently in the process of developing guidelines for *Healthy People 2010*.

The National Center for Health Promotion was also recently featured in the *American Veteran*, a journal published by the Veterans of America Association, in the (January/February, 1998) issue. The article written by Christa Watters, describes the Center's goals and accomplishments in a comprehensive and positive manner.

Web Update

Since its birth on the World Wide Web last November, our home page (www.va.gov/nchp) has received 5000 hits and responded to approximately 50 questions from veterans and others. Look for "Prevention Pages" a new feature dealing with clinical topics for assisting providers in their treatment of patients and new linkages to both VA and non-VA entities to be added soon.

Time for PMPC Conference Call

The next semi-annual Preventive Medicine Program Coordinator conference call will be held **October 6, 1998 at** 1:00 - 1:50 pm EDT; 12:00 - 12:50 CT; 11:00 - 11:50 MT; and 10:00 - 10:50 PT. Major topics for the call are:introduc-

tion of a new Preventive Medicine Field Advisory Group (PMFAG) member, Michael Gaziano, MD, MPH,Director of the Massachusetts Veterans Epidemiology Research and Information Center in West Roxbury; (see related announcement, p. 6); status of the NCHP special health initiatives; summit to discuss the future of preventive care in the VHA; summary of the 1998 national program in New Orleans; the revised VHA Handbook; the proposed new coding system for recording prevention activities; and other VISN-related preventive medicine issues. The call in number is **1.800.767.1750.** We invite anyone interested in or working in prevention to join us on the call. Tentative dates for the CY 1999 calls are March 2 and October 5.

Dorothy R. Lagrier
Newsletter Editor

Dorothy R. Gagnier, Ph.D. Assistant Director, Education National Center for Health Promotion

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FY 1998 Veterans Health Survey

ne of the responsibilities of the NCHP is to report to Congress annually on the rates that veterans who receive care at our VHA facilities receive health promotion and disease prevention services as defined in VHA Handbook 1101.8. The current list includes 13 evidence-based services that are recommended as a minimum for all average risk veterans receiving primary care at VA facilities.

The recommended intervals are for normal or average risk individuals. Any veteran with an elevated risk due to family history, concurrent diseases, lifestyle, or other reason may require more frequent screening. The primary care provider can arrange the optimal schedule in these cases.

Results of the FY 1998 Veterans Health Survey

Random samples of 300 men and 150 women from each of 153 VA facilities were selected (nine sites did not have 150 women eligible; we selected all who were eligible in those instances). Eligibility was defined as living in the community with a post office address and having received primary care at least once during FY 1997 from any of these clinics: General Internal Medicine (301), Geriatric Clinic (318), Geriatric Evaluation and Management Clinic (319), Women's Clinic (322), and the Primary Care/Medicine Clinic (323). We achieved a 67% adjusted response rate after two mailings (42,625 respondents in total \div 66,316 – 2,968 ineligibles). The data were optically scanned into a computer and 100% verified on screen.

Based on these responses, we calculated rates for each of the 13 prevention services for each VAMC, and the weighted averages for VISNs and the VHA as a whole. We also compared these rates with comparable data from the FY 1997 Veterans Health Survey. The VHA data are presented in the following table.

For the VHA as a whole, both male and female veterans currently exceed the U.S. Year 2000 Goals in six areas (hyperlipidemia screening, influenza immunization, pneumococcal immunization, colon cancer screening, tobacco counseling, and activity counseling) and the female veterans exceeded the U.S. Year 2000 goals in four additional areas (TD boosters, cervical cancer screening, breast cancer screening, and seatbelt use). The preventive practice most in need of attention continues to be counseling for problem drinking and alcohol use moderation. Accordingly, the Preventive Medicine Field Advisory Group (PMFAG) has proposed this area for an NCHP special health initiative.

Every national 1998 assessment equaled or exceeded the national 1997 rates with the one exception of males reporting Td boosters in the last decade, declining from 53% to 52%.

Laurence G. Branch, Ph.D., Associate Director National Center for Health Promotion and Disease Prevention

FY 1998 Veterans Health Survey	VA Goals for Year 2000 ^a	VHA Rate ^b FY 1997 (max n= 44,304)	VHA Rate ^b FY 1998 (max n= 42,625)	Change from 1997 to 1998
PRIMARY PREVENTION (AVOIDANCE)				
1. HYPERTENSION				
% of males with blood pressure checked in the past 2 years	90%	88%	88%	0
% of females with blood pressure checked in the past 2 years	90%	87%	87%	0
2. HYPERLIPIDEMIA	750	79%	020/	. 20/
% of males age 35 to 65 with cholesterol checked in the past 5 years % of females age 45 to 65 with cholesterol checked in the past 5 years	75% 75%	82%	82% 85%	+3% +3%
3. INFLUENZA IMMUNIZATION	7370	02/0	05/0	+3/0
% of males age 65 and older who received an influenza vaccine this year	60%	75%	77%	+2%
% of females age 65 and older who received an influenza vaccine this year	60%	73%	74%	+1%
4. PNEUMOCOCCAL VACCINE				
% of males age 65 and older who received pneumococcal vaccine at least once	60%	59%	68%	+9%
% of females age 65 and older who received pneumococcal vaccine at least once 5. TETANUS	60%	65%	71%	+6%
% of males receiving Td booster at least once in the past decade	62%	53%	52%	-1%
% of females receiving Td booster at least once in the past decade	62%	59%	62%	+3%
SECONDARY PREVENTION (EARLY DETECTION AND TREATMENT)				
6. CERVICAL CANCER DETECTION				
% of females under age 65 with Pap test in the past 3 years 7. BREAST CANCER DETECTION	85%	89%	89%	0
% of women age 50 to 69 who received a mammogram in the past 2 years 3. COLORECTAL CANCER DETECTION	60%	85%	87%	+2%
% of males over age 50 receiving a fecal occult blood test this year	50%	33%	56% ^c	+23%c
% of females over age 50 receiving a fecal occult blood test this year	50%	29%	51% ^c	+22%°
ASSESSMENT AND COUNSELING, if appropriate, for:				
9. TOBACCO USE COUNSELING				
% of males who are current tobacco users	15%	30%	30%	0
% of females who are current tobacco users	15%	27%	27%	0
% of male tobacco users offered counseling	75%	73%	79%	+6%
% of female tobacco users offered counseling 10. PROBLEM DRINKING AND ALCOHOL MODERATION COUNSELING	75%	78%	82%	+4%
% of males asked/screened for problem drinking and alcohol use this year	75%	29%	39%	+10%
% of females asked/screened for problem drinking and alcohol use this year 11. WEIGHT CONTROL AND NUTRITION COUNSELING	75%	21%	29%	+8%
% of males receiving nutrition counseling this year.	75%	49%	50%	+1%
% of females receiving nutrition counseling this year. 12. PHYSICAL ACTIVITY COUNSELING	75%	45%	47%	+2%
% of males receiving activity counseling this year	50%	57%	60%	+3%
% of females receiving activity counseling this year 3. SEATBELT AND ACCIDENT AVOIDANCE COUNSELING	50%	55%	58%	+3%
% of males receiving seatbelt use/accident avoidance counseling this year	50%	11%	16%	+5%
% of females receiving seatbelt use/accident avoidance counseling this year	50%	10%	15%	+5%
% of males reporting "almost always" using seatbelts	85%	70%	72%	+2%
% of females reporting "almost always" using seatbelts	85%	85%	86%	+1%
a. VA Handbook 1101.8. b. Weighted as appropriate; 95% confidence interval for the VHA is less than ±1%.				

Smoking Cessation Conference

"Clinicians need to be actively involved with patients'efforts to stop smoking; they need to ask and record the tobacco-use status of every patient in their care." These and other observations offered by Dr. Eric Westman, Director, Smoking Research Laboratory at the Durham VA and other professional colleagues were presented at a symposium May 20th. The exemplary planning and content of this program are worth noting for possible replication in other VISNs.

The program, "Implementing the AHCPR Smoking Cessation

Guidelines in the VA Setting" was sponsored by the Department of Veterans Affairs Employee Education System and the VA Mid-Atlantic Network (VISN 6). At the conclusion of the meeting, participants were expected to be able to identify key elements of the AHCPR Smoking Cessation Guidelines, understand the importance of smoking cessation in primary care and implement successful methods for enhancing smoking cessation at their home base. Action plan development, facilitated by conference consultants, rounded out the program.

In his opening address, Dr. Westman counseled clinicians to urge their patients to quit in a non-judgmental way and assist them by setting up a quit date.

Cessation treatments as brief as three minutes a visit are effective; more intense treatment can produce long-term abstinence from tobacco. Medical therapy (nicotine patches or gum) and clinician-delivered support are the main ingredients in effective treatment. Health care systems should make institutional changes that result in systematic identification and intervention at every visit.

Anne M. Joseph, MD, MPH, Principal Investigator TRANSCAP Study at the Minneapolis VA, discussed the treatment of smokers with medical and psychiatric co-morbidities. Dr. Joseph advised that nicotine patches are safe for use in patients with heart disease and

that smokers tend to have a higher prevalence of numerous psychiatric co-morbidities than non-smokers. Regrettably she noted, scant research exists to guide us in the effective treatment of smokers with psychiatric co-morbidities.

The featured luncheon speaker was Robert E. Mecklenburg, former Chief Dental Officer in the Veterans Administration. Currently, Dr. Mecklenburg serves as an AHCPR Guideline Panelist with the U.S. Public Health Service. In his talk he emphasized the role of profes-

sional development in motivating practitioners to practice tobacco cessation and mentioned various barriers to both implementation and practice.

Other speakers included Robert H. Shipley, Ph.D. who described the "QuitSmart" program he developed; Mary Burdick, Ph.D., R.N., who summarized NCHP data from the NCHP FY 1997 Special Initiative Smoking Cessation Report citing those areas in VA medical centers most in need of improvement; and Jed E. Rose, Ph.D., Chief, Nicotine Research Program and Co-inventor of the Nicotine Patch, Duke University who offered concluding remarks.

Dr. Westman and his staff did a magnificent job in developing a "Facility Specific Guideline Inventory" used as a preliminary tool in the development of a facility action plan which culminated the day-long session. The outline consists of facility review of AHCPR Guideline Recommedations and the current state of smoking cessation activities. Also included were columns for recording the action taken based on this information, the contact person and follow-up. Dr. Westman's office would be happy to share this easy-to-use and efficient outline to other interested VA staff. For more information, contact him at 919.286.6822 or <ewestman@acpub.duke.edu>.



Implementing Smoking Cessation Guidelines: A Study of Evidence-Based Quality Improvement

More and more health care systems are adopting clinical practice guidelines. This is particularly true within VHA, where each facility now has 25 to 30 practice guidelines that they are required to implement. However, there is relatively little information on how to implement these practice guidelines.

An extremely wide variety of approaches - from lectures to computer reminders to quality improvement - have been tried, with equally wide

variations in the degree of success. This gap in knowledge led the VA Health Services Research and Development Service to request proposals on evaluating methods for implementing guidelines. Researchers at the Sepulveda-based VA Center for the Study of Healthcare Provider Behavior (a VA HSR&D field program) have just started a randomized trial of implementing the Agency for Healthcare Policy and Research (AHCPR) Clinical Practice Guidelines on smoking cessation at 20 VA medical centers in the Southwestern United States. The study, led by principal investigator Scott E. Sherman M.D., M.P.H., is examining whether evidence-based quality improvement will help institutions be more successful

at getting patients to quit smoking. The ten intervention sites will receive assistance in setting priorities for smoking cessation, developing a quality improvement plan to address these smoking cessation priorities, and implementing the plan. Thus, the study will be evaluating the process of improving care rather than any one particular method for improving care. Dr. Sherman believes that this is essential, since as he observes, it is impossible to come up with one particular intervention that applies to all 20 sites. Each have widely different programs in place for smoking cessation, as well as equally different

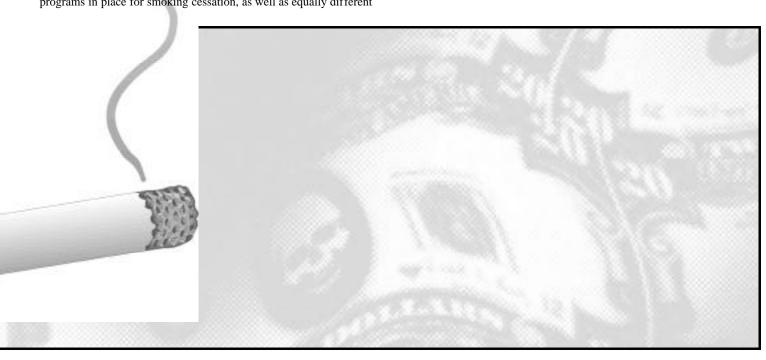
goals and priorities." Assisting Dr. Sherman in the intervention and its evaluation are several co-investigators: Lisa Rubenstein, M.D., M.S.P.H., Brian Mittman Ph.D., Elizabeth Yano, Ph.D., and Linda Ferry, M.D., M.P.H.

It is interesting to note that this study is similar in many ways to the 20-site study of implementing the AHCPR Smoking Cessation Guidelines led by Anne Joseph M.D., M.P.H. (Minneapolis VAMC),

that will be featured in an upcoming issue of *Prevention Notes*. Dr. Sherman's study uses evidence-based quality improvement to help the entire institution do better in smoking cessation, while Dr. Joseph's investigation focuses on increasing the nursing role in screening and counseling patients. Both studies are looking at the same primary endpoint - the institutional rate of smoking cessation. In other words, both studies will determine whether the population smoking cessation rate is higher at the intervention sites than at the control sites.

These two clinical trials should provide extremely valuable information to the VA and other health care

organizations about implementing clinical practice guidelines. Just as providers are increasingly moving toward practicing evidence-based medicine, this information will help organizations move toward evidence-based practice guideline implementation. For more information about Dr. Sherman's study, please either contact **Dr. Sherman** 818.891.7711 x9909, FTS 966.9909, <ssherman@ucla.edu> or the study coordinator, Audree Chapman 818.891.7711 x5183, <audree.chapman@med.va.gov>.



'98 Translating Evidence Into Practice

he Agency for Health Care Policy and Research (AHCPR) sponsored their second annual meeting in Washington, DC in July 1998 focusing on "Translating Evidence Into Practice." Over 300 attendees heard from distinguished clinicians about the need for national coordination and leadership in order to implement effective evidence-based medicine.

The Department of Health and Human Services announced last year plans to develop a comprehensive Internet-based source for clinical practice guidelines. AHCPR, the American Association of Health Plans and the American Medical Association will work jointly to develop the new guideline clearinghouse (NGC). The NGC will make a range of guidelines on treatments for specific medical conditions available. It is anticipated that the NGC will be up and running by December, 1998.

At the "Translating Evidence Into Practice" meeting, AHCPR Director, Dr. John Eisenberg, acknowledged Florence Nightingale as the first person to use hospital statistics for cost benefits analysis. Hospital statistics are essential in order that we can ascertain which services are being delivered and how effective those services are. He went on to say that there are serious gaps in access to health care. Non-caucasian Americans need better access to health care. For those who do not have access to health care, the quality issue becomes irrelevant.

Dr. David Satcher, Assistant Secretary for Health and Surgeon General, addressed the meeting and spoke about "big picture challenges." He emphasized that every child deserves a healthy start in life. Many of our young people are not emotionally ready to accept the responsibility of parenthood. Thirty-five percent of pregnant women do not have access to health care. Tobacco cessation, immunization, and diminished use of cocaine are all major healthcare challenges in American society today.

He also stressed that we need to do more to promote a healthy lifestyle including addressing the areas of nutrition (five servings fruit/vegetables a day) and physical activity. Thirty minutes of exercise a day could help reduce cardiac deaths by 50% and reduce late onset diabetes by 30%. We need a more balanced research agenda with increased emphasis on studies in health promotion and disease prevention. Tobacco use contributes to low birth weight, respiratory problems and increased incidence of sudden infant death syndrome. Over four million Americans are addicted to heroin and crack cocaine. There are many racial disparities relating to access to healthcare and the quality of care. Dr. Satcher emphasized that when we respond to healthcare needs of the most vulnerable in our society, we improve the healthcare of all members of society.

Dr. W. Scott Richardson, Assistant Professor of Medicine, University of Texas Health Science Center at San Antonio, discussed Clinical Judgment and Evidence-Based Medicine. He emphasized the role of clinical judgment in moving from numbers to clinical application.

Dr. Edward Shortliffe, Professor of Medicine and Computer Science, Stanford University discussed "Using the Internet to Improve Knowledge Diffusion in Medicine." Health-care professionals are facing an information crisis due to unprecedented expansion in the knowledge-base of medicine. Practitioners often do not become aware of important advances in a timely manner due to a variety of barriers to access and assimilation of new information. Challenges range from ignorance of the availability of relevant information to time constraints that inhibit facile access in work settings, ranging from the office or clinic to the hospital ward, library, or home. The use of browsing software, with local, national, and international resources accessible via the world wide web, offers the potential for providing crucial information to practitioners at precisely the time when it is most needed, when the pertinent management decisions must be made. Integration of such software with clinical information systems

is a crucial element in this vision, and the world wide web provides a potential unifying mechanism for a variety of generic and patient-specific information resources.

Integration is essential and integrated clinical "workstations" lie at the core of efforts to provide pertinent information and decision support at the point of patient care. Integration allows for clinical, administrative, research and decision support along with scholarly access.

Many concurrent sessions were offered over the two and a half day program. Some of the topics covered included:

- Computer Support in Evidence-Based Medicine
- Discipline Specific Approaches to Evidence-Based Practice
- Changing Behavior to Improve Quality of Care
- Clinical Practice Guidelines: The National Guideline Clearinghouse and Structured Reviews
- Linking Evidence Reports to Practice Improvements
- Cost-Effectiveness Analysis and Decision-making
- Selling Evidence-Based Medicine in the Medical Marketplace

Health promotion and disease prevention advocates are encouraged to consider attending the meeting next year. Conference information is available on the AHCPR home page at http://www.ahcpr.gov.news or call: 301-770-3153 for additional information.

Mildred L. Eichinger, RN, MPH Clinical Program Director Primary/Ambulatory Care Office (112)



Gaziano New PMFAG Member

J. Michael Gaziano, MD, MPH has been recently appointed to the Preventive Medicine Field Advisory Group. Dr. Gaziano is a cardiologist and epidemiologist at the Brockton/West Roxbury VAMC where he serves as the Director of Cardiovascular Rehabilitation and Prevention. In this role, he has developed a case-management model program for cardiac rehabilitation and pre-

vention. The program is physician-supervised, but employs a team of both physician and non-physician providers for risk factor assessment and modification. Dr. Gaziano also directs a Fellowship in cardiac rehabilitaiton and prevention and serves as Director of the Massachusetts Veterans Epidemiology Research and Information Center (MAVERIC), one of three national centers of epidemiology research excellence in the VA. The MAVERIC is involved in a number of research projects focusing on chronic diseases that afflict veterans including cardiovascular disease, pulmonary disease, cancer, gastrointestinal disease, mental health, diabetes, and hyperlipidemia. He is co-investigator on several largescale NIH funded trials at Harvard Medical School and the Brigham and Women's Hospital. Dr. Gaziano also serves as an Assistant Professor of Medicine at Harvard Medical School. In 1997 he received the Presidential Early Career Award for Scientists and Engineers.

Frequently Asked Questions (FAQ) About Hepatitis C

What is Hepatitis C?

Hepatitis C is a disease caused by infection with the Hepatitis C Virus (HCV). The Hepatitis C Virus is an RNA virus of the Flaviviridae family which is found in the blood of persons who have the HCV infection.

How common is the Hepatitis C Virus infection?

The incidence of HCV infection is 28,000-180,000 total infections/yr in the United States. 1.8% (3.9 million) of Americans are chronically infected with this virus. 25-30% of those who are infected are symptomatic. Among the infected, chronic infection develops in approximately 85% persons and chronic liver disease in approximately 70%. HCV infection is currently the leading indication for liver transplantation in the United States.

How does infection with Hepatitis C Virus present clinically?

Infection with HCV causes both acute and chronic liver disease. Persons who are infected with this virus are at increased risk of developing hepatocellular carcinoma. Occasionally, patients with HCV infection present with extrahepatic manifestations or syndromes considered to be of immunologic origin including arthritis, keratoconjunctivitis sicca, lichen planus, glomerulonephritis, and essential mixed cryoglobulinemia.

How is Hepatitis C Virus infection acquired?

Prior to blood donor screening for HCV, most new cases were due to transfusion from infected blood. Since the introduction of donor screening, HCV is rarely acquired by transfusion and today, most new cases of HCV infection are due to high risk drug (60%) or sexual (20%) behavior. Direct percutaneous exposure is currently the most efficient method for transmitting HCV.

In drug users, HCV infection is acquired rapidly after beginning injection drug use, with 50-80 percent of new users becoming positive for the antibody to HCV within 6-12 months. Injection drug use accounts for half of all new infections annually and perhaps greater than 50 percent of all chronic infections

In addition, it is thought that the majority of the rest of the cases can be explained by transfusion prior to 1990, occupational exposures to blood, hemodialysis, high-risk sexual activity (multiple partners and/or history of sexually transmitted diseases), and non-injection illegal drug use (intra-nasal cocaine). Percutaneous exposures such as body piercing and tattooing are potential sources of transmission if contaminated equipment or supplies are used, although their role in transmission of HCV infection in the United States has not been confirmed. It is now considered that the route of transmission is unknown in less than 10 percent of newly acquired cases of HCV.

Data regarding transmissibility by sexual contact have been conflicting. Based on studies in sexually transmitted disease clinics, sexual transmission appears to occur. However, even with multiple sexual partners, the risk is low. The risk does appear to be increased by co-infection with HIV or other sexually transmitted diseases. Although transmission in long-term monogamous relationships may occur, the risk is minimal.

There is some evidence for occupational and nosocomial transmission of HCV infection. Health care workers have a higher prevalence than the general population, although many may have acquired it from other sources. However, inadvertent needle stick injuries and lack of application of universal precautions may be contributing factors. The risk of infection from needle sticks in HCV is intermediate between that of HIV and Hepatitis B. HCV transmission between patients in dialysis centers may be related to poor infection control practices. Although transmission from health care workers to patients has been documented, such transmission is thought to be rare.

Perinatal transmission between mother and baby has been documented, although the risk is estimated at no more than 6 percent. The risk is increased if the mother is co-infected with HIV. Although data are limited, there is no evidence that breast-feeding transmits HCV from mother to baby.

HCV is not spread by sneezing, hugging, coughing, sharing eating utensils or drinking glasses, food, water or casual contact.

How is infection with Hepatitis C Virus diagnosed?

Tests that detect serum antibody against the virus include the enzyme immunoassays which contain HCV antigens, and the recombinant immunoblot assays which contain the same HCV antigens as enzyme immunoassays in an immunoblot format. In addition, several polymerase chain reaction-based assays for HCV RNA have been developed to detect the RNA virus directly.

Liver biopsy can determine the extent of liver injury due to HCV. Although some histologic findings are characteristic of HCV infection, there are currently no reliable, readily available tests for detection of HCV antigens in the liver.

How is the Hepatitis C Virus infection prevented?

This involves 1) the screening of blood, organ and tissue donors, and 2) counseling to reduce and modify high-risk behavior.

Why should persons be tested for Hepatitis C Virus infection?

High-risk groups should be tested for HCV so that they can be: a) appropriately counseled about how to prevent transmission of HCV to others mainly by addressing the high-risk behaviors associated with acquiring HCV, and b) checked for the presence of liver disease and receive treatment if indicated.

Who should be tested for Hepatitis C Virus infection?

The following persons should be tested for HCV:

- 1) blood transfusion recipients notified of receipt of blood from a positive donor;
- 2) persons who have received a blood transfusion or solid organ transplant (e.g., kidney, liver, heart) before July, 1992;
- 3) persons who were treated with a blood product for clotting problems before 1987;
- 4) persons who have ever injected street drugs;
- 5) persons who have ever been on long-term kidney dialysis; and
- 6) persons who have ever had a sexually transmitted disease.

Current VHA policy is outlined in the June 11th Information Letter: 10-98-013 Hepatitis C: Standards for Provider Evaluation and Testing.

Verona Hegarty, MB, MRCPI Assistant Director, Research National Center for Health Promotion and Disease Prevention





New VA Center aims to help physicians, managers and patients evaluate and use best medical evidence

Evidence-based health care is becoming a familiar concept within the VA system.

"Much less attention has been paid to the issue of how to best put this research evidence into practice," notes Jacqueline Pugh, MD, principal investigator for the new Center of Excellence based in San Antonio and Charleston. "How do we make research evidence meaningful to the people who need it?"

Known as VERDICT, Veterans Evidence-based Research, Dissemination, and Implementation Center, its mission is to foster a knowledge-based VHA health service in which decisions are based on continually updated sound information from research findings. VERDICT's three objectives are to:

- **1. synthesize available evidence**—perform evidence syntheses consistent with VHA priority areas and create frameworks for integrating evidence across multiple diseases;
- 2. translate the evidence into summaries that are clinically meaningful for various consumers, such as providers, patients, managers and policymakers. Also help formulate policy by producing or refining practice guidelines and critical pathways; and
- 3. disseminate the translated evidence and facilitate its application in clinical practice. Also evaluate continuing education and implementation techniques.

The center's clinical focus is patients with multiple chronic diseases, who pose a particular challenge to the system. Because many practice guidelines apply to these patients, it is difficult for providers to work it all into a 15-minute visit, Pugh suggests. In addition, some guidelines conflict with each other, forcing providers and patients to make choices about which guidelines should take precedence, observes Cynthia Mulrow, MD, a VERDICT investigator in San Antonio.

"The U.S. Preventive Task Force illustrates how the entire field of prevention has been way ahead of the clinical fields in promoting evidence-based practice," Pugh says. "Only after solid evidence emerges do they throw their weight behind preventive measures."

VERDICT activities focus on secondary prevention of complications, rather than on primary prevention of illness. The program is a collaboration between the South Texas Veterans Health Care System/Audie L. Murphy Division, and the Ralph H. Johnson Veterans Affairs Medical Center in Charleston, South Carolina. Scientific partners include the VA Cochrane Center @ San Antonio, which is now part of the VERDICT, and the Center for Health Care Research in Charleston, based at the Medical University of South Carolina. San Antonio's team is led by Pugh, who helped develop the VA's clinical practice guidelines for Type II diabetes, and Mulrow, director of the VA Cochrane Center @ San Antonio. Charleston's team leader is health economist Dr. Marc Silverstein, who heads the Center for Health Care Research. For more information contact Karen Stamm at 210.617.5300 x4266; e-mail kstamm@merece.uthscsa.edu.

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Putting Prevention Into Practice in the VA